

In the Claims:

*Applicants request that the claims in the present application be amended, without prejudice, to read as follows:*

1 (canceled).

2 (previously presented). A system according to claim 20, wherein said complex fluid includes first and second fluid components that are responsive to light energy, and wherein said monochromatic light is effective to substantially preserve said first fluid component and to substantially excite said second fluid component.

3 (previously presented). A system according to claim 20, wherein said complex fluid is selected from the group consisting of blood products, pharmaceuticals, injectable solutions and vaccines.

4 (previously presented). A system according to claim 16, wherein said monochromatic light has a wavelength of between 260 nm and 310 nm.

5 (canceled).

6 (canceled).

7 (canceled).

8 (previously presented). A system according to claim 16, further comprising a cooling liquid in thermal communication with said light emitting surface that is distinct from said complex fluid, wherein said cooling liquid is water.

9 (canceled).

10 (canceled).

11 (canceled).

12 (canceled).

13 (canceled).

14 (canceled).

15 (canceled).

16 (currently amended). A system for treating complex fluids, comprising:

- a) a power supply;
- b) a bounded volume of photon-producing gas for generating monochromatic light, said bounded volume positioned within and spaced from a fluid-tight housing that includes at least one light emitting surface having a light emitting surface geometry; and
- b) c) a treatment surface having a treatment surface geometry positioned for irradiation by said monochromatic light emitted from said housing; wherein said light emitting surface geometry is planar and substantially corresponds to said treatment surface geometry;  
wherein said power supply supplies power with respect to said bounded volume of photon-producing gas so as to generate monochromatic light; and  
wherein a complex fluid is positioned adjacent said treatment surface for irradiation by said monochromatic light emitted from said housing.

17 (original). A system according to claim 16, wherein said photon-producing gas is an excimer gas selected from the group consisting of XeI, Cl<sub>2</sub>, XeBr, Br<sub>2</sub>, XeCl, filtered XeBr, I<sub>2</sub> and XeF.

18 (canceled).

19 (original). A system according to claim 16, further comprising a quartz plate mounted to said fluid-tight housing, said quartz plate having inwardly and outwardly directed faces, and wherein said inwardly directed face of said quartz plate is said light emitting surface and said outwardly directed face of said quartz plate is said treatment surface.

20 (canceled).

21 (original). A system according to claim 16, wherein said complex fluid is contained within a body or limb, and said treatment surface constitutes a surface of said body or limb.

22 (canceled).

23 (canceled).

24 (canceled).

25 (canceled).

26 (canceled).

27 (canceled).

28 (canceled).

29 (canceled).

30 (canceled).

31 (canceled).

32 (canceled).